Effects of Transportation Stress, Handling Stress and Flunixin Meglumine ~ 13 days after AI on Pregnancy Establishment in Beef Cattle

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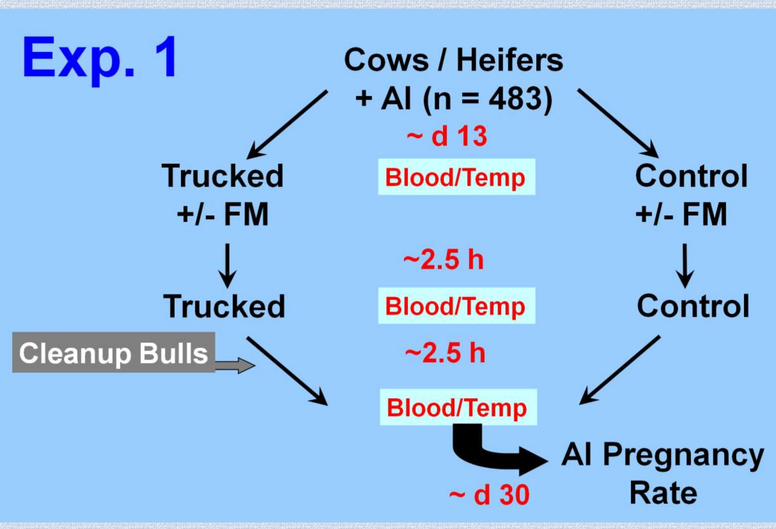
Introduction

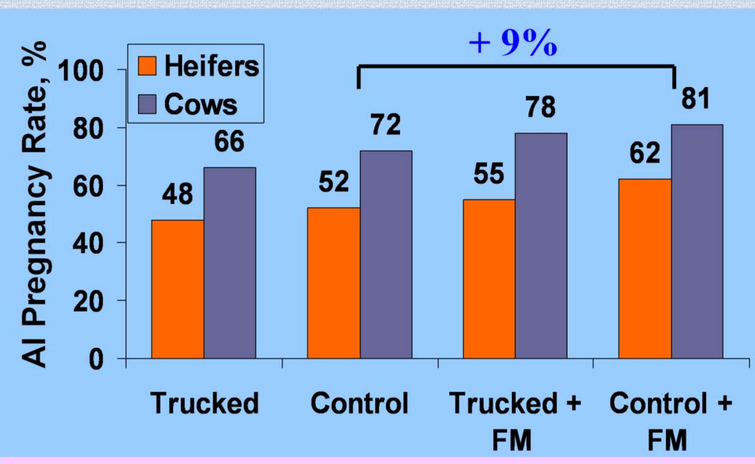
Embryonic mortality represents a significant loss to the beef and dairy industries and may represent the single greatest economic loss for cow/calf producers. With 40,000,000 beef cows and heifers exposed to breeding each year in the U.S., annual losses exceed $1.2 billion. Transportation of cattle at critical times after AI decreased pregnancy rates, presumably through increased embryonic loss. Our objective was to determine effects of transportation, handling stress, and a single injection of Flunixin Meglumine (FM; a prostaglandin inhibitor) ~13 d after AI on pregnancy establishment.

Materials and Methods

Exp. 1



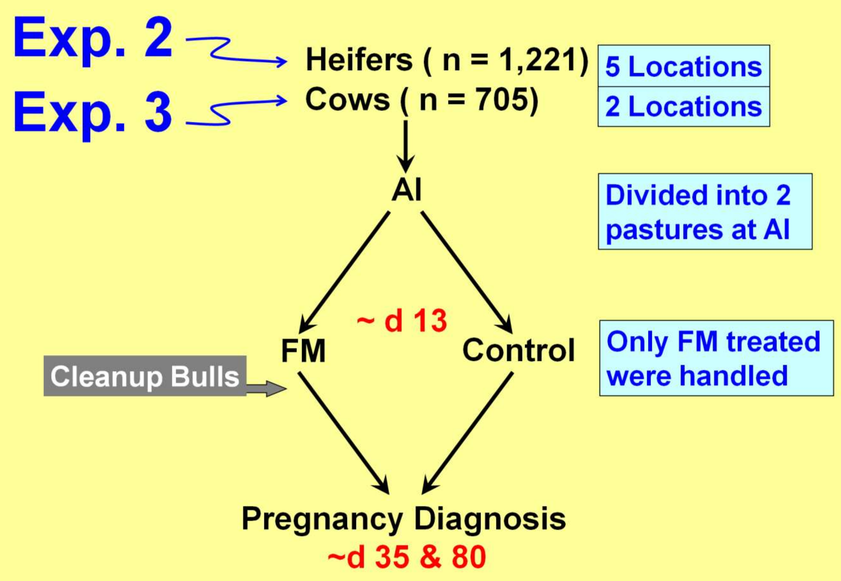
Results

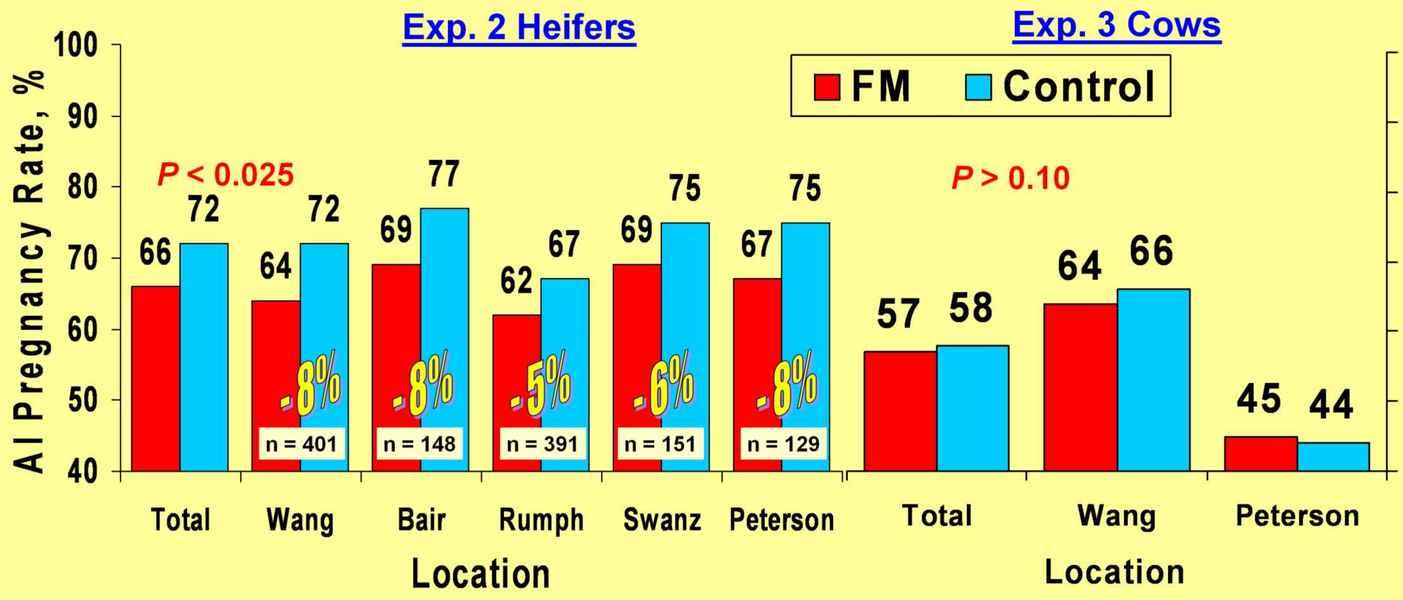


➢ **FM increased AI pregnancy rates 10% (P < 0.05)**

Can FM improve pregnancy establishment compared to non-stressed females?

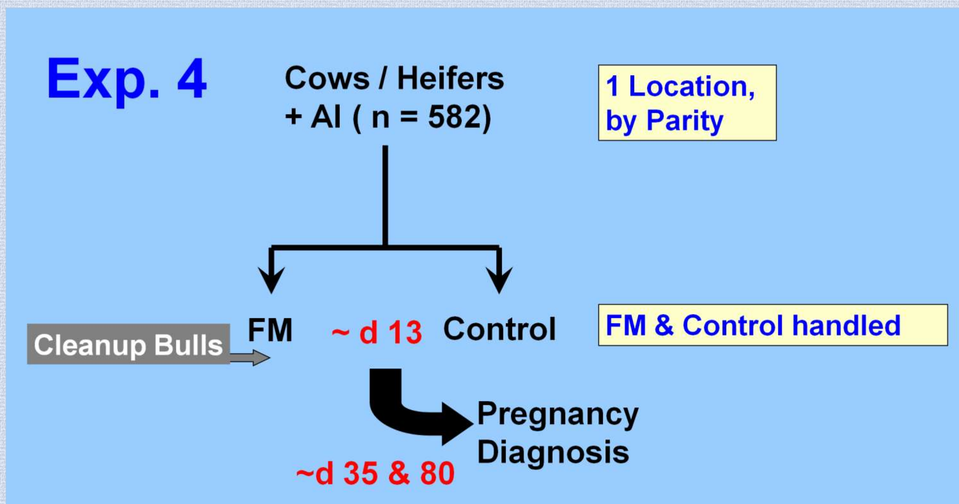
Exp. 2 / Exp. 3

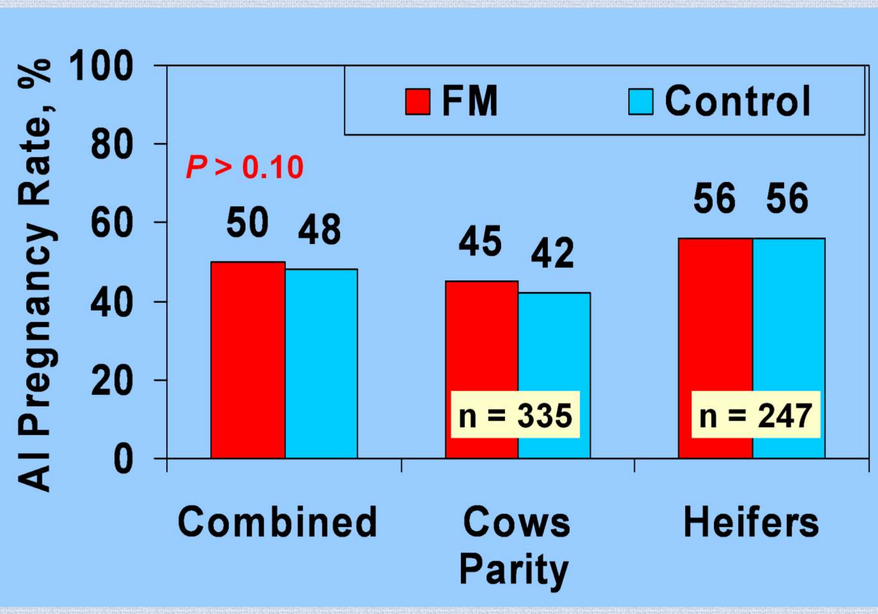




➢ **Handling heifers to administer FM decreased AI pregnancy rates**

Exp. 4





Conclusions

1. **Handling stress after AI causes embryonic mortality in cattle!**
2. **Administration of Flunixin Meglumine can overcome that loss in cows.**
3. **Flunixin Meglumine appears to salvage embryonic loss that occurs in cattle transported 10 to 15 d after AI.**